

In the claims:

Please amend the claims as follows:

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1. (Original) A PTH analogue or a truncated PTH analogue or a pharmaceutically acceptable salt thereof that selectively binds to the PTH2 receptor.
2. (Original) A PTH analogue or a truncated PTH analogue or a pharmaceutically acceptable salt thereof according to claim 1 where said analogue is a selective PTH2 receptor agonist.
3. (Original) A PTH analogue or a truncated PTH analogue or a pharmaceutically acceptable salt thereof according to claim 1 where said analogue is a selective PTH2 receptor antagonist.
4. (Original) A method of selectively binding a PTH2 receptor which comprises administering to a patient in need thereof an effective amount of an analogue according to claim 1 or a pharmaceutically-acceptable salt thereof.
5. (Original) A method of selectively eliciting an agonist response from the PTH2 receptor which comprises administering to a patient in need thereof an effective amount of an analogue according to claim 2 or a pharmaceutically acceptable salt thereof.
6. (Original) A method of selectively eliciting an antagonist response from the PTH2 receptor which comprises administering to a patient in need thereof an effective amount of an analogue according to claim 3 or a pharmaceutically acceptable salt thereof.

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7. (Currently Amended) An analogue according to claim 1 wherein said analogue is of formula (I),  $(R^1R^2)-A^1-A^2-A^3-A^4-A^5-A^6-A^7-A^8-A^9-A^{10}-A^{11}-A^{12}-A^{13}-A^{14}-A^{15}-A^{16}-A^{17}-A^{18}-A^{19}-A^{20}-A^{21}-A^{22}-A^{23}-A^{24}-A^{25}-A^{26}-A^{27}-A^{28}-A^{29}-A^{30}-A^{31}-A^{32}-A^{33}-A^{34}-A^{35}-A^{36}-A^{37}-A^{38}-R^3$ ,  
(I)

or a pharmaceutically-acceptable salt thereof wherein

$A^1$  is a hydrophilic or a lipophilic amino acid;

$A^2$  is a lipophilic amino acid;

$A^3$  is a hydrophilic or a lipophilic amino acid;

$A^4$  is a hydrophilic amino acid;

$A^5$  is a hydrophilic or a lipophilic amino acid;

$A^6$  is a hydrophilic amino acid or is deleted;

$A^7$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^8$  is a lipophilic amino acid or is deleted;

$A^9$  is a hydrophilic amino acid or is deleted;

$A^{10}$  is a hydrophilic amino acid or is deleted;

$A^{11}$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^{12}$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^{13}$  is a hydrophilic amino acid;

$A^{14}$  is a hydrophilic amino acid or is deleted;

$A^{15}$  is a lipophilic amino acid or is deleted;

$A^{16}$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^{17}$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^{18}$  is a lipophilic amino acid or is deleted;

$A^{19}$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^{20}$  is a hydrophilic amino acid or is deleted;

$A^{21}$  is a hydrophilic or a lipophilic amino acid or is deleted;

$A^{22}$  is a lipophilic or a hydrophilic amino acid or is deleted;

$A^{23}$  is a hydrophilic or a lipophilic amino acid;

$A^{24}$  is a hydrophilic or a lipophilic amino acid;

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A<sup>25</sup> is a hydrophilic amino acid;  
A<sup>26</sup> is a hydrophilic amino acid;  
A<sup>27</sup> is a lipophilic or a hydrophilic amino acid;  
A<sup>28</sup> is a lipophilic amino acid;  
A<sup>29</sup> is a lipophilic or a hydrophilic amino acid;  
A<sup>30</sup> is a hydrophilic or a lipophilic amino acid;  
A<sup>31</sup> is a lipophilic or a hydrophilic amino acid or is deleted;  
A<sup>32</sup> is a hydrophilic amino acid or is deleted;  
A<sup>33</sup> is a hydrophilic amino acid or is deleted;  
A<sup>34</sup> is a lipophilic amino acid or is deleted;  
A<sup>35</sup> is a lipophilic amino acid or is deleted;  
A<sup>36</sup> is a lipophilic or a hydrophilic amino acid or is deleted;  
A<sup>37</sup> is a lipophilic amino acid or is deleted;  
A<sup>38</sup> is a lipophilic or a hydrophilic amino acid or is deleted;

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R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl-(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;  
or one of R<sup>1</sup> or R<sup>2</sup> is COE<sup>1</sup> where E<sup>1</sup> is (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl; and  
R<sup>3</sup> is OH, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>30</sub>)alkoxy or NH-Y-CH<sub>2</sub>-Z, where Y is a (C<sub>1</sub>-C<sub>30</sub>) hydrocarbon moiety and Z is CO<sub>2</sub>H or CONH<sub>2</sub>;

provided that the compound is not PTH(1-34)R<sup>3</sup> (SEQ ID NO:4), PTH(1-35)R<sup>3</sup> (SEQ ID NO:5), PTH(1-36)R<sup>3</sup> (SEQ ID NO:6), PTH(1-37)R<sup>3</sup> (SEQ ID NO:7), or PTH(1-38)R<sup>3</sup> (SEQ ID NO:8).

8. (Original) A method of selectively binding a PTH2 receptor which comprises administering to a patient in need thereof an effective amount of an analogue according to claim 7 or a pharmaceutically-acceptable salt thereof.

9 (Currently Amended) An analogue according to claim 1 of formula (II), (R<sup>1</sup>R<sup>2</sup>)-A<sup>1</sup>-A<sup>2</sup>-A<sup>3</sup>-A<sup>4</sup>-A<sup>5</sup>-A<sup>6</sup>-A<sup>7</sup>-A<sup>8</sup>-A<sup>9</sup>-A<sup>10</sup>-A<sup>11</sup>-A<sup>12</sup>-A<sup>13</sup>-A<sup>14</sup>-A<sup>15</sup>-A<sup>16</sup>-A<sup>17</sup>-A<sup>18</sup>-A<sup>19</sup>-A<sup>20</sup>-A<sup>21</sup>-A<sup>22</sup>-A<sup>23</sup>-A<sup>24</sup>-A<sup>25</sup>-A<sup>26</sup>-A<sup>27</sup>-A<sup>28</sup>-A<sup>29</sup>-A<sup>30</sup>-A<sup>31</sup>-A<sup>32</sup>-A<sup>33</sup>-A<sup>34</sup>-A<sup>35</sup>-A<sup>36</sup>-A<sup>37</sup>-A<sup>38</sup>-R<sup>3</sup>,  
(II)

or a pharmaceutically-acceptable salt thereof wherein

A<sup>1</sup> is Ser, Ala, Dap, Thr, Aib or is deleted;

A<sup>2</sup> is Val, Leu, Ile, Phe, Nle, β-Nal, Aib, p-X-Phe, Acc, Cha, Met or is deleted;

A<sup>3</sup> is Ser, Thr, Aib or is deleted;

A<sup>4</sup> is Glu, Asp or is deleted;

A<sup>5</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe or is deleted;

A<sup>6</sup> is Gln, a hydrophilic amino acid or is deleted;

A<sup>7</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, a lipophilic amino acid, or is deleted;

A<sup>8</sup> is Met, Nva, Leu, Val, Ile, Cha, Acc, Nle, p-X-Phe, Phe, β-Nal, Bpa, a lipophilic amino acid or is deleted;

A<sup>9</sup> is His, a hydrophilic amino acid or is deleted;

A<sup>10</sup> is Asn, a hydrophilic amino acid or is deleted;

A<sup>11</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, a hydrophilic amino acid or is deleted;

A<sup>12</sup> is Gly, Acc, Aib, or is deleted;

A<sup>13</sup> is Lys, Arg or HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O);

A<sup>14</sup> is His or is deleted;

A<sup>15</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe or is deleted;

A<sup>16</sup> is Ser, Asn, Ala, Aib or is deleted;

A<sup>17</sup> is Ser, Thr, Aib or is deleted;

A<sup>18</sup> is Met, Nva, Leu, Val, Ile, Nle, p-X-Phe, Phe, β-Nal, Acc, Cha, Aib or is deleted;

A<sup>19</sup> is Glu, Aib or is deleted;

A<sup>20</sup> is Arg, Lys, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>21</sup> is Val, Leu, Ile, Phe, Nle, β-Nal, Aib, p-X-Phe, Acc, Cha, Met or is deleted;

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A<sup>22</sup> is Acc, Aib, Glu or is deleted;

A<sup>23</sup> is Trp, Acc, Phe, p-X-Phe, Aib,  $\beta$ -Nal or Cha;

A<sup>24</sup> is Leu, Acc, Ile, Val, Phe,  $\beta$ -Nal, Nle, Aib, p-X-Phe or Cha;

A<sup>25</sup> is Arg, Lys or  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$ ;

A<sup>26</sup> is Arg, Lys or  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$ ;

A<sup>27</sup> is Lys, Aib, Leu, hArg, Gln, Acc, Arg, Cha, Nle, Ile, Val, Phe,  $\beta$ -Nal, or p-X-Phe, where the Lys is optionally substituted on the  $\epsilon$ -amino group by an acyl group;

A<sup>28</sup> is Leu, Acc, Cha, Ile, Val, Phe, Nle,  $\beta$ -Nal, Aib or p-X-Phe;

A<sup>29</sup> is Gln, Acc or Aib;

A<sup>30</sup> is Asp, Lys, Arg or is deleted;

A<sup>31</sup> is Val, Leu, Nle, Acc, Cha, Phe, Ile,  $\beta$ -Nal, Aib, p-X-Phe or is deleted;

A<sup>32</sup> is His or is deleted;

A<sup>33</sup> is Asn or is deleted;

A<sup>34</sup> is Phe, Tyr, Amp, Aib,  $\beta$ -Nal, Cha, Nle, Leu, Ile, Acc, p-X-Phe or is deleted;

A<sup>35</sup> is Val, Leu, Nle, Acc, Cha, Phe, Ile,  $\beta$ -Nal, Aib, p-X-Phe or is deleted;

A<sup>36</sup> is Ala, Val, Aib, Acc, Nva, Abu or is deleted;

A<sup>37</sup> is Leu, Val, Nle, Ile, Cha,  $\beta$ -Nal, Trp, Pal, Acc, Phe, p-X-Phe, a lipophilic amino acid, or is deleted;

A<sup>38</sup> is Gly, Acc, Aib, or is deleted;

where X for each occurrence is independently selected from the group consisting of OH, a halo and CH<sub>3</sub>;

R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl-(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;

or one of R<sup>1</sup> or R<sup>2</sup> is COE<sup>1</sup> where E<sup>1</sup> is (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;

R<sup>3</sup> is OH, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>30</sub>)alkoxy or NH-Y-CH<sub>2</sub>-Z, where Y is a (C<sub>1</sub>-C<sub>30</sub>) hydrocarbon moiety and Z is CO<sub>2</sub>H or CONH<sub>2</sub>;

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n for each occurrence is independently an integer from 1 to 5; and

R<sup>4</sup> for each occurrence is independently (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>1</sub>-C<sub>30</sub>)acyl or  
-C((NH)(NH<sub>2</sub>));

provided that the compound is not PTH(1-34)R<sup>3</sup> (SEQ ID NO:4), PTH(1-35)R<sup>3</sup> (SEQ ID NO:5),  
PTH(1-36)R<sup>3</sup> (SEQ ID NO:6), PTH(1-37)R<sup>3</sup> (SEQ ID NO:7), or PTH(1-38)R<sup>3</sup> (SEQ ID NO:8).

10. (Original) A compound of the formula (III), (R<sup>1</sup>R<sup>2</sup>)-A<sup>1</sup>-A<sup>2</sup>-A<sup>3</sup>-A<sup>4</sup>-A<sup>5</sup>-A<sup>6</sup>-A<sup>7</sup>-A<sup>8</sup>-  
A<sup>9</sup>-A<sup>10</sup>-A<sup>11</sup>-A<sup>12</sup>-A<sup>13</sup>-A<sup>14</sup>-A<sup>15</sup>-A<sup>16</sup>-A<sup>17</sup>-A<sup>18</sup>-A<sup>19</sup>-A<sup>20</sup>-A<sup>21</sup>-A<sup>22</sup>-A<sup>23</sup>-A<sup>24</sup>-A<sup>25</sup>-A<sup>26</sup>-A<sup>27</sup>-A<sup>28</sup>-A<sup>29</sup>-A<sup>30</sup>-  
A<sup>31</sup>-A<sup>32</sup>-A<sup>33</sup>-A<sup>34</sup>-A<sup>35</sup>-A<sup>36</sup>-A<sup>37</sup>-A<sup>38</sup>-R<sup>3</sup>,

(III)

or a pharmaceutically-acceptable salt thereof wherein

A<sup>1</sup> is Ser, Ala, Dap, Thr, Aib or is deleted;

A<sup>2</sup> is Val, Leu, Ile, Phe, Nle, β-Nal, Aib, p-X-Phe, Acc, Cha, Met or is deleted;

A<sup>3</sup> is Ser, Thr, Aib or is deleted;

A<sup>4</sup> is Glu, Asp or is deleted;

A<sup>5</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe or is deleted;

A<sup>6</sup> is Gln, a hydrophilic amino acid or is deleted;

A<sup>7</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, a lipophilic amino acid, or is  
deleted;

A<sup>8</sup> is Met, Nva, Leu, Val, Ile, Cha, Acc, Nle, p-X-Phe, Phe, β-Nal, Bpa, a lipophilic amino acid  
or is deleted;

A<sup>9</sup> is His, a hydrophilic amino acid or is deleted;

A<sup>10</sup> is Asn, a hydrophilic amino acid or is deleted;

A<sup>11</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, a hydrophilic amino acid or is  
deleted;

A<sup>12</sup> is Gly, Acc, Aib, or is deleted;

A<sup>13</sup> is Lys, Arg or HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O);

A<sup>14</sup> is His or is deleted;

A<sup>15</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe or is deleted;

A<sup>16</sup> is Ser, Asn, Ala, Aib or is deleted;

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A<sup>17</sup> is Ser, Thr, Aib or is deleted;

A<sup>18</sup> is Met, Nva, Leu, Val, Ile, Nle, p-X-Phe, Phe, β-Nal, Acc, Cha, Aib or is deleted;

A<sup>19</sup> is Glu, Aib or is deleted;

A<sup>20</sup> is Arg, Lys, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>21</sup> is Val, Leu, Ile, Phe, Nle, β-Nal, Aib, p-X-Phe, Acc, Cha, Met or is deleted;

A<sup>22</sup> is Acc, Aib, Glu or is deleted;

A<sup>23</sup> is Trp, Acc, Phe, p-X-Phe, Aib, β-Nal or Cha;

A<sup>24</sup> is Leu, Acc, Ile, Val, Phe, β-Nal, Nle, Aib, p-X-Phe or Cha;

A<sup>25</sup> is Arg, Lys or HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O);

A<sup>26</sup> is Arg, Lys or HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O);

A<sup>27</sup> is Lys, Aib, Leu, hArg, Gln, Acc, Arg, Cha, Nle, Ile, Val, Phe, β-Nal, or p-X-Phe, where the Lys is optionally substituted on the ε-amino group by an acyl group;

A<sup>28</sup> is Leu, Acc, Cha, Ile, Val, Phe, Nle, β-Nal, Aib or p-X-Phe;

A<sup>29</sup> is Gln, Acc or Aib;

A<sup>30</sup> is Asp, Lys, Arg or is deleted;

A<sup>31</sup> is Val, Leu, Nle, Acc, Cha, Phe, Ile, β-Nal, Aib, p-X-Phe or is deleted;

A<sup>32</sup> is His or is deleted;

A<sup>33</sup> is Asn or is deleted;

A<sup>34</sup> is Phe, Tyr, Amp, Aib, β-Nal, Cha, Nle, Leu, Ile, Acc, p-X-Phe or is deleted;

A<sup>35</sup> is Val, Leu, Nle, Acc, Cha, Phe, Ile, β-Nal, Aib, p-X-Phe or is deleted;

A<sup>36</sup> is Ala, Val, Aib, Acc, Nva, Abu or is deleted;

A<sup>37</sup> is Leu, Val, Nle, Ile, Cha, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, a lipophilic amino acid, or is deleted;

A<sup>38</sup> is Gly, Acc, Aib, or is deleted;

where X for each occurrence is independently selected from the group consisting of OH, a halo and CH<sub>3</sub>;

R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl-(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl,

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hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;  
or one of R<sup>1</sup> or R<sup>2</sup> is COE<sup>1</sup> where E<sup>1</sup> is (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;  
R<sup>3</sup> is OH, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>30</sub>)alkoxy or NH-Y-CH<sub>2</sub>-Z, where Y is a (C<sub>1</sub>-C<sub>30</sub>) hydrocarbon moiety and Z is CO<sub>2</sub>H or CONH<sub>2</sub>;  
n for each occurrence is independently an integer from 1 to 5; and  
R<sup>4</sup> for each occurrence is independently (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>1</sub>-C<sub>30</sub>)acyl or -C((NH)(NH<sub>2</sub>));

provided that when A<sup>8</sup> is not a lipophilic D-amino acid or is not deleted then at least one of A<sup>6</sup>, A<sup>7</sup>, A<sup>9</sup>, A<sup>10</sup>, A<sup>11</sup> and A<sup>12</sup> is a D-amino acid or at least one of A<sup>6</sup>, A<sup>7</sup>, A<sup>9</sup>, A<sup>10</sup>, A<sup>11</sup>, A<sup>12</sup>, A<sup>13</sup>, A<sup>14</sup>, A<sup>15</sup>, A<sup>16</sup>, A<sup>17</sup>, A<sup>18</sup>, A<sup>19</sup>, A<sup>20</sup>, A<sup>21</sup> and A<sup>22</sup> is deleted;

and further provided that when the compound contains a D-amino acid then A<sup>36</sup> is deleted.

11. (Currently Amended) A compound according to claim 10 wherein said compound is

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[D-Nle<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Nle<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Leu<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Cha<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Phe<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Nal<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Abu<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Met<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7, 11</sup>, D-Met<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Ile<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7, 11</sup>, D-Ile<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Ile<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Leu<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,



[Cha<sup>7,11</sup>, D-Leu<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Val<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Val<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Val<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Cha<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Cha<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Ala<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Ala<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Ala<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Phe<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Phe<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Nal<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Trp<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Trp<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Trp<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Abu<sup>8</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Abu<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Nle<sup>8</sup>, Nle<sup>18</sup>]hPTH(1-34)NH<sub>2</sub>,  
[des-Met<sup>8</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:18),  
[Cha<sup>7,11</sup>, des-Met<sup>8</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:19),  
[Cha<sup>7,11</sup>, des-Met<sup>8</sup>, des-Met<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:20),  
[des-Met<sup>8</sup>, des-Met<sup>18</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:21),  
[Cha<sup>7,11</sup>, des-Met<sup>8</sup>, des-Met<sup>18</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:22),  
[des-Met<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:23),  
[des-Met<sup>18</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:24),  
[Cha<sup>7,11</sup>, des-Met<sup>18</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:25),  
[Cha<sup>7,11</sup>, des-Met<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:26),  
[D-Nle<sup>8</sup>, des-Met<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[des-Glu<sup>6</sup>Gln<sup>6</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:27),  
[des-Leu<sup>7</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:28),

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[des-His<sup>9</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:29),  
[des-Asn<sup>10</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:30),  
[des-Leu<sup>11</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:31),  
[des-Gly<sup>12</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:32),  
[des-Lys<sup>13</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:33),  
[des-His<sup>14</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:34),  
[des-Leu<sup>15</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:35),  
[des-Asn<sup>16</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:36),  
[des-Ser<sup>17</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:37),  
[des-Glu<sup>19</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:38),  
[des-Arg<sup>20</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:39),  
[des-Val<sup>21</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:40),  
[des-Glu<sup>22</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:41),  
[des-Glu<sup>6</sup>Gln<sup>6</sup>, Cha<sup>7,11</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:42),  
[des-Leu<sup>7</sup>, Nle<sup>8,18</sup>, Cha<sup>11</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:43),  
[Cha<sup>7,11</sup>, des-His<sup>9</sup>, Nle<sup>8,18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:44),  
[des-Glu<sup>6</sup>Gln<sup>6</sup>, Cha<sup>7,11</sup>, D-Nle<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[des-Leu<sup>7</sup>, D-Nle<sup>8</sup>, Cha<sup>11</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Nle<sup>8</sup>, des-His<sup>9</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, D-Nle<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-31)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, des-Met<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:16),  
[Cha<sup>7,11</sup>, D-Nle<sup>8</sup>, des-Met<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[Cha<sup>7,11</sup>, des-Met<sup>8</sup>, des-His<sup>9</sup>, des-Asn<sup>10</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:45),  
[Cha<sup>7,11</sup>, des-Ser<sup>17</sup>, des-Met<sup>18</sup>, des-Glu<sup>19</sup>]hPTH(1-34)NH<sub>2</sub> (SEQ ID NO:46),  
[D-Met<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Met<sup>8</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Bpa<sup>8</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>,  
[D-Nle<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(7-34)NH<sub>2</sub>,  
[D-Nle<sup>8</sup>, Nle<sup>18</sup>]hPTH(7-34)NH<sub>2</sub> or  
[D-Met<sup>8</sup>]hPTH(7-34)NH<sub>2</sub>.

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12. (Currently Amended) A compound according to claim 11 wherein said compound is

[Cha<sup>7,11</sup>, des-Met<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH-(1-34)NH<sub>2</sub> (SEQ ID NO:16),

[Cha<sup>7,11</sup>, D-Nle<sup>8</sup>, des-Met<sup>18</sup>, Tyr<sup>34</sup>]hPTH-(1-34)NH<sub>2</sub>,

[Cha<sup>7,11</sup>, D-Nle<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH-(1-34)NH<sub>2</sub>,

[D-Nle<sup>8</sup>, Nle<sup>18</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub> or [D-Bpa<sup>8</sup>, Tyr<sup>34</sup>]hPTH(1-34)NH<sub>2</sub>.

13. (Currently Amended) A PTHrP analogue of formula (IV) that selectively binds to the PTH2 receptor, (R<sup>1</sup>R<sup>2</sup>)-A<sup>1</sup>-A<sup>2</sup>-A<sup>3</sup>-A<sup>4</sup>-A<sup>5</sup>-A<sup>6</sup>-A<sup>7</sup>-A<sup>8</sup>-A<sup>9</sup>-A<sup>10</sup>-A<sup>11</sup>-A<sup>12</sup>-A<sup>13</sup>-A<sup>14</sup>-A<sup>15</sup>-A<sup>16</sup>-A<sup>17</sup>-A<sup>18</sup>-A<sup>19</sup>-A<sup>20</sup>-A<sup>21</sup>-A<sup>22</sup>-A<sup>23</sup>-A<sup>24</sup>-A<sup>25</sup>-A<sup>26</sup>-A<sup>27</sup>-A<sup>28</sup>-A<sup>29</sup>-A<sup>30</sup>-A<sup>31</sup>-A<sup>32</sup>-A<sup>33</sup>-A<sup>34</sup>-A<sup>35</sup>-A<sup>36</sup>-A<sup>37</sup>-A<sup>38</sup>-R<sup>3</sup>,  
(IV)

or a pharmaceutically acceptable salt thereof, wherein

A<sup>1</sup> is Ala, Ser, Dap, Thr, Aib or is deleted;

A<sup>2</sup> is Val or is deleted;

A<sup>3</sup> is Ser, Aib, Thr or is deleted;

A<sup>4</sup> is Glu, Asp or is deleted;

A<sup>5</sup> is His, Ile, Acc, Val, Nle, Phe, Leu, p-X-Phe, β-Nal, Aib, Cha or is deleted;

A<sup>6</sup> is Gln, a hydrophilic amino acid or is deleted;

A<sup>7</sup> is Leu, Val, Cha, Nle, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, Aib, a lipophilic amino acid or is deleted;

A<sup>8</sup> is Leu, Met, Acc, Cha, Aib, Nle, Phe, Ile, Val, β-Nal, p-X-Phe, a lipophilic amino acid or is deleted;

A<sup>9</sup> is His, a hydrophilic amino acid or is deleted;

A<sup>10</sup> is Asp, Asn, a hydrophilic amino acid or is deleted;

A<sup>11</sup> is Lys, Arg, Leu, Cha, Aib, p-X-Phe, Ile, Val, Nle, Acc, Phe, β-Nal, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O), a lipophilic D-amino acid, a hydrophilic amino acid or is deleted;

A<sup>12</sup> is Gly, Acc, Aib or is deleted;

A<sup>13</sup> is Lys, Arg, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>14</sup> is Ser, His or is deleted;

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A<sup>15</sup> is Ile, Acc, Cha, Leu, Phe, Nle,  $\beta$ -Nal, Trp, p-X-Phe, Val, Aib or is deleted;

A<sup>16</sup> is Gln, Aib or is deleted;

A<sup>17</sup> is Asp, Aib or is deleted;

A<sup>18</sup> is Leu, Aib, Acc, Cha, Phe, Ile, Nle,  $\beta$ -Nal, Val, p-X-Phe or is deleted;

A<sup>19</sup> is Arg, Lys, Aib, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>20</sup> is Arg, Lys, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>21</sup> is Arg, Lys, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>22</sup> is Phe, Glu, Aib, Acc, p-X-Phe,  $\beta$ -Nal, Val, Leu, Ile, Nle or Cha;

A<sup>23</sup> is Phe, Leu, Lys, Acc, Cha,  $\beta$ -Nal, Aib, Nle, Ile, p-X-Phe, Val or Trp;

A<sup>24</sup> is Leu, Lys, Acc, Nle, Ile, Val, Phe,  $\beta$ -Nal, Aib, p-X-Phe, Arg or Cha;

A<sup>25</sup> is His, Lys, Aib, Acc, Arg or Glu;

A<sup>26</sup> is His, Aib, Acc, Arg or Lys;

A<sup>27</sup> is Leu, Lys, Acc, Arg, Ile, Val, Phe, Aib, Nle,  $\beta$ -Nal, p-X-Phe or Cha;

A<sup>28</sup> is Ile, Leu, Lys, Acc, Cha, Val, Phe, p-X-Phe, Nle,  $\beta$ -Nal, Aib or is deleted;

A<sup>29</sup> is Ala, Glu, Acc, Aib or is deleted;

A<sup>30</sup> is Glu, Leu, Nle, Cha, Aib, Acc, Lys, Arg or is deleted;

A<sup>31</sup> is Ile, Leu, Cha, Lys, Acc, Phe, Val, Nle,  $\beta$ -Nal, Arg or is deleted;

A<sup>32</sup> is His or is deleted;

A<sup>33</sup> is Thr, Ser or is deleted;

A<sup>34</sup> is Ala, Phe, Tyr, Cha, Val, Ile, Leu, Nle,  $\beta$ -Nal, Aib, Acc or is deleted;

A<sup>35</sup> is Glu, Asp or is deleted;

A<sup>36</sup> is Ile, Acc, Cha, Leu, Phe, Nle,  $\beta$ -Nal, Trp, p-X-Phe, Val, Aib or is deleted;

A<sup>37</sup> is Arg, Lys, HN-CH((CH<sub>2</sub>)<sub>n</sub>NH-R<sup>4</sup>)-C(O) or is deleted;

A<sup>38</sup> is Ala, Phe, Tyr, Cha, Val, Ile, Leu, Nle,  $\beta$ -Nal, Aib, Acc or is deleted;

R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl-(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;

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or one of R<sup>1</sup> or R<sup>2</sup> is COE<sup>1</sup> where E<sup>1</sup> is (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;

R<sup>3</sup> is OH, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>30</sub>)alkoxy or NH-Y-CH<sub>2</sub>-Z, where Y is a (C<sub>1</sub>-C<sub>30</sub>) hydrocarbon moiety and Z is CO<sub>2</sub>H or CONH<sub>2</sub>;

n for each occurrence is independently an integer from 1 to 5; and

R<sup>4</sup> for each occurrence is independently (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>1</sub>-C<sub>30</sub>)acyl or -C((NH)(NH<sub>2</sub>));

provided that the compound is not PTHrP(1-34)R<sup>3</sup> (SEQ ID NO:9), PTHrP(1-35)R<sup>3</sup> (SEQ ID NO:10), PTHrP(1-36)R<sup>3</sup> (SEQ ID NO:11), PTHrP(1-37)R<sup>3</sup> (SEQ ID NO:12) or PTHrP(1-38)R<sup>3</sup> (SEQ ID NO:13),

and further provided that the compound is not [Ile<sup>5</sup>, Trp<sup>23</sup>] PTHrP(1-36) (SEQ ID NO:14) or [Trp<sup>23</sup>] PTHrP(1-36) (SEQ ID NO:15).

14. (Original) A compound of formula (V), (R<sup>1</sup>R<sup>2</sup>)-A<sup>1</sup>-A<sup>2</sup>-A<sup>3</sup>-A<sup>4</sup>-A<sup>5</sup>-A<sup>6</sup>-A<sup>7</sup>-A<sup>8</sup>-A<sup>9</sup>-A<sup>10</sup>-A<sup>11</sup>-A<sup>12</sup>-A<sup>13</sup>-A<sup>14</sup>-A<sup>15</sup>-A<sup>16</sup>-A<sup>17</sup>-A<sup>18</sup>-A<sup>19</sup>-A<sup>20</sup>-A<sup>21</sup>-A<sup>22</sup>-A<sup>23</sup>-A<sup>24</sup>-A<sup>25</sup>-A<sup>26</sup>-A<sup>27</sup>-A<sup>28</sup>-A<sup>29</sup>-A<sup>30</sup>-A<sup>31</sup>-A<sup>32</sup>-A<sup>33</sup>-A<sup>34</sup>-A<sup>35</sup>-A<sup>36</sup>-A<sup>37</sup>-A<sup>38</sup>-R<sup>3</sup>,

(V)

or a pharmaceutically acceptable salt thereof, wherein

A<sup>1</sup> is Ala, Ser, Dap, Thr, Aib or is deleted;

A<sup>2</sup> is Val or is deleted;

A<sup>3</sup> is Ser, Aib, Thr or is deleted;

A<sup>4</sup> is Glu, Asp or is deleted;

A<sup>5</sup> is His, Ile, Acc, Val, Nle, Phe, Leu, p-X-Phe, β-Nal, Aib, Cha or is deleted;

A<sup>6</sup> is Gln, a hydrophilic amino acid or is deleted;

A<sup>7</sup> is Leu, Val, Cha, Nle, β-Nal, Trp, Pal, Acc, Phe, p-X-Phe, Aib, a lipophilic amino acid or is deleted;

A<sup>8</sup> is Leu, Met, Acc, Cha, Aib, Nle, Phe, Ile, Val, β-Nal, p-X-Phe, a lipophilic amino acid or is deleted;

A<sup>9</sup> is His, a hydrophilic amino acid or is deleted;

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A<sup>10</sup> is Asp, Asn, a hydrophilic amino acid or is deleted;

A<sup>11</sup> is Lys, Arg, Leu, Cha, Aib, p-X-Phe, Ile, Val, Nle, Acc, Phe,  $\beta$ -Nal,  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$ , a lipophilic D-amino acid, a hydrophilic amino acid or is deleted;

A<sup>12</sup> is Gly, Acc, Aib or is deleted;

A<sup>13</sup> is Lys, Arg,  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$  or is deleted;

A<sup>14</sup> is Ser, His or is deleted;

A<sup>15</sup> is Ile, Acc, Cha, Leu, Phe, Nle,  $\beta$ -Nal, Trp, p-X-Phe, Val, Aib or is deleted;

A<sup>16</sup> is Gln, Aib or is deleted;

A<sup>17</sup> is Asp, Aib or is deleted;

A<sup>18</sup> is Leu, Aib, Acc, Cha, Phe, Ile, Nle,  $\beta$ -Nal, Val, p-X-Phe or is deleted;

A<sup>19</sup> is Arg, Lys, Aib,  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$  or is deleted;

A<sup>20</sup> is Arg, Lys,  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$  or is deleted;

A<sup>21</sup> is Arg, Lys,  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$  or is deleted;

A<sup>22</sup> is Phe, Glu, Aib, Acc, p-X-Phe,  $\beta$ -Nal, Val, Leu, Ile, Nle or Cha;

A<sup>23</sup> is Phe, Leu, Lys, Acc, Cha,  $\beta$ -Nal, Aib, Nle, Ile, p-X-Phe, Val or Trp;

A<sup>24</sup> is Leu, Lys, Acc, Nle, Ile, Val, Phe,  $\beta$ -Nal, Aib, p-X-Phe, Arg or Cha;

A<sup>25</sup> is His, Lys, Aib, Acc, Arg or Glu;

A<sup>26</sup> is His, Aib, Acc, Arg or Lys;

A<sup>27</sup> is Leu, Lys, Acc, Arg, Ile, Val, Phe, Aib, Nle,  $\beta$ -Nal, p-X-Phe or Cha;

A<sup>28</sup> is Ile, Leu, Lys, Acc, Cha, Val, Phe, p-X-Phe, Nle,  $\beta$ -Nal, Aib or is deleted;

A<sup>29</sup> is Ala, Glu, Acc, Aib or is deleted;

A<sup>30</sup> is Glu, Leu, Nle, Cha, Aib, Acc, Lys, Arg or is deleted;

A<sup>31</sup> is Ile, Leu, Cha, Lys, Acc, Phe, Val, Nle,  $\beta$ -Nal, Arg or is deleted;

A<sup>32</sup> is His or is deleted;

A<sup>33</sup> is Thr, Ser or is deleted;

A<sup>34</sup> is Ala, Phe, Tyr, Cha, Val, Ile, Leu, Nle,  $\beta$ -Nal, Aib, Acc or is deleted;

A<sup>35</sup> is Glu, Asp or is deleted;

A<sup>36</sup> is Ile, Acc, Cha, Leu, Phe, Nle,  $\beta$ -Nal, Trp, p-X-Phe, Val, Aib or is deleted;

A<sup>37</sup> is Arg, Lys,  $\text{HN-CH}((\text{CH}_2)_n\text{NH-R}^4)\text{-C(O)}$  or is deleted;

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A<sup>38</sup> is Ala, Phe, Tyr, Cha, Val, Ile, Leu, Nle,  $\beta$ -Nal, Aib, Acc or is deleted;

R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl-(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;  
or one of R<sup>1</sup> or R<sup>2</sup> is COE<sup>1</sup> where E<sup>1</sup> is (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>2</sub>-C<sub>30</sub>)alkenyl, phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>1</sub>-C<sub>30</sub>)alkyl, hydroxy(C<sub>2</sub>-C<sub>30</sub>)alkenyl, hydroxy-phenyl(C<sub>1</sub>-C<sub>30</sub>)alkyl or hydroxy-naphthyl(C<sub>1</sub>-C<sub>30</sub>)alkyl;  
R<sup>3</sup> is OH, NH<sub>2</sub>, (C<sub>1</sub>-C<sub>30</sub>)alkoxy or NH-Y-CH<sub>2</sub>-Z, where Y is a (C<sub>1</sub>-C<sub>30</sub>) hydrocarbon moiety and Z is CO<sub>2</sub>H or CONH<sub>2</sub>;  
n for each occurrence is independently an integer from 1 to 5; and  
R<sup>4</sup> for each occurrence is independently (C<sub>1</sub>-C<sub>30</sub>)alkyl, (C<sub>1</sub>-C<sub>30</sub>)acyl or -C((NH)(NH<sub>2</sub>));

provided that when A<sup>8</sup> is not a lipophilic D-amino acid or is not deleted then at least one of A<sup>6</sup>, A<sup>7</sup>, A<sup>9</sup>, A<sup>10</sup>, A<sup>11</sup> and A<sup>12</sup> is a D-amino acid or at least one of A<sup>6</sup>, A<sup>7</sup>, A<sup>9</sup>, A<sup>10</sup>, A<sup>11</sup>, A<sup>12</sup>, A<sup>13</sup>, A<sup>14</sup>, A<sup>15</sup>, A<sup>16</sup>, A<sup>17</sup>, A<sup>18</sup>, A<sup>19</sup>, A<sup>20</sup>, A<sup>21</sup> and A<sup>22</sup> is deleted.

15. (Currently Amended) A compound according to claim 14 wherein said compound is

[Ile<sup>5</sup>, D-Leu<sup>8</sup>]hPTHrP(1-34)NH<sub>2</sub>,

[Ile<sup>5</sup>, D-Leu<sup>8</sup>, Trp<sup>23</sup>]hPTHrP(1-34)NH<sub>2</sub>,

[Ile<sup>5</sup>, des-Leu<sup>8</sup>, Trp<sup>23</sup>]hPTHrP(1-34)NH<sub>2</sub> (SEQ ID NO:47),

[Ile<sup>5</sup>, des-Leu<sup>8</sup>]hPTHrP(1-34)NH<sub>2</sub> (SEQ ID NO:48),

[des-Leu<sup>8</sup>, Trp<sup>23</sup>]hPTHrP(1-34)NH<sub>2</sub> (SEQ ID NO:49),

[Ile<sup>5</sup>, des-Leu<sup>18</sup>]hPTHrP(1-34)NH<sub>2</sub> (SEQ ID NO:50),

[Ile<sup>5</sup>, des-Leu<sup>18</sup>, Trp<sup>23</sup>]hPTHrP(1-34)NH<sub>2</sub> (SEQ ID NO:51),

[des-Leu<sup>18</sup>, Trp<sup>23</sup>]hPTHrP(1-34)NH<sub>2</sub> (SEQ ID NO:52),

[Ile<sup>5</sup>, D-Leu<sup>8</sup>, Glu<sup>22,25</sup>, Leu<sup>23,28,31</sup>, Lys<sup>26,30</sup>, Aib<sup>29</sup>]hPTHrP(1-34)NH<sub>2</sub>,

[Ile<sup>5</sup>, D-Leu<sup>8</sup>, Glu<sup>22,25</sup>, Trp<sup>23</sup>, Lys<sup>26,30</sup>, Leu<sup>28,31</sup>, Aib<sup>29</sup>]hPTHrP(1-34)NH<sub>2</sub>,

[Ile<sup>5</sup>, D-Leu<sup>8</sup>, Glu<sup>22,25,29</sup>, Leu<sup>23,28,31</sup>, Lys<sup>26,30</sup>]hPTHrP(1-34)NH<sub>2</sub>,

D13  
cont

[Ile<sup>5</sup>, D-Leu<sup>8</sup>, Glu<sup>22,25,29</sup>, Trp<sup>23</sup>, Lys<sup>26,30</sup>, Leu<sup>28,31</sup>]hPTHrP(1-34)NH<sub>2</sub> or  
[D-Leu<sup>8</sup>, Trp<sup>23</sup>]hPTHrP(7-34)NH<sub>2</sub>.

16. (Original) A method of selectively binding the PTH2 receptor which comprises administering to a patient in need thereof an analogue according to claim 9 or a pharmaceutically acceptable salt thereof.

17. (Original) A method of selectively binding the PTH2 receptor which comprises administering to a patient in need thereof a compound according to claim 10 or a pharmaceutically acceptable salt thereof.

18. (Original) A method of selectively binding the PTH2 receptor which comprises administering to a patient in need thereof a compound according to claim 11 or a pharmaceutically acceptable salt thereof.

19. (Original) A method of selectively binding a PTH2 receptor which comprises administering to a patient in need thereof a compound according to claim 12 or a pharmaceutically acceptable salt thereof.

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20. (Original) A method of selectively binding a PTH2 receptor which comprises administering to a patient in need thereof an analogue according to claim 13 or a pharmaceutically acceptable salt thereof.

21. (Original) A method of selectively binding a PTH2 receptor which comprises administering to a patient in need thereof a compound according to claim 14 or a pharmaceutically acceptable salt thereof.

22. (Original) A method of selectively binding a PTH2 receptor which comprises administering to a patient in need thereof a compound according to claim 15 or a pharmaceutically acceptable salt thereof.



23. (Original) A pharmaceutical composition comprising an analogue according to claim 9 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

24. (Original) A pharmaceutical composition comprising a compound according to claim 10 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

25. (Original) A pharmaceutical composition comprising a compound according to claim 11 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

26. (Original) A pharmaceutical composition comprising a compound according to claim 12 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

27. (Original) A pharmaceutical composition comprising an analogue according to claim 13 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

28. (Original) A pharmaceutical composition comprising a compound according to claim 14 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

DB  
CMT  
29. (Original) A pharmaceutical composition comprising a compound according to claim 15 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier.

30. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of an analogue according to claim 7, sufficient to inhibit the activation of the PTH2 receptor of said patient.

31. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need

thereof an effective amount of an analogue according to claim 9, sufficient to inhibit the activation of the PTH2 receptor of said patient.

32 (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of a compound according to claim 10, sufficient to inhibit the activation of the PTH2 receptor of said patient.

33. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of a compound according to claim 11, sufficient to inhibit the activation of the PTH2 receptor of said patient.

34. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of a compound according to claim 12, sufficient to inhibit the activation of the PTH2 receptor of said patient.

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35. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of an analogue according to claim 13, sufficient to inhibit the activation of the PTH2 receptor of said patient.

36. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of a compound according to claim 14, sufficient to inhibit the activation of the PTH2 receptor of said patient.

37. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need

thereof an effective amount of a compound according to claim 15, sufficient to inhibit the activation of the PTH2 receptor of said patient.

38. (Original) A method according to claim 30 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

39. (Original) A method according to claim 31 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

40. (Original) A method according to claim 32 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

41. (Original) A method according to claim 33 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

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42. (Original) A method according to claim 34 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

43. (Original) A method according to claim 35 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

44. (Original) A method according to claim 36 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

45. (Original) A method according to claim 37 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

46. (Original) A method of treating a medical disorder that results from altered or excessive action of the PTH2 receptor, which comprises administering to a patient in need thereof an effective amount of a PTH analogue or a truncated PTH analogue or a pharmaceutically acceptable salt thereof according to claim 1, sufficient to inhibit the activation of the PTH2 receptor of said patient.

DB 47. (Original) A method according to claim 46 wherein said medical disorder is abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease.

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